Proposed Navy Mitigation Project

USS Carl Vinson

October 1997 Oil Spill

Presented to: Washington State
Department of Ecology
Resource Damage Assessment Committee

Presented by: Naval Base, Seattle
Naval On-Scene Coordinator

BEAVER CREEK FISH LADDER REPAIR

1) Location of Project:

Mouth of Beaver Creek which empties into Clam Bay. Adjacent/within the Naval Reservation property for Manchester Fuel Depot and the NOAA Marine Laboratory. Both sites are federal property. The ladder provides salmonid access into Beaver Creek. Site location map attached.

2) Brief Description of Project:

This composite project entails the use of hand labor to 1) replace displaced riprap protection along the wings of the ladder entrance, 2) replace one 8 foot section of storm impacted shoring and 3) repairing two ladder cell footings by replacing storm damaged concrete and the under-shoring composed of rock. These potential project elements are tidal influenced and limited by available labor assets applied during the open tidal window. The optimum tidal sequence occurs from 24 to 28 April, 1998, wherein negative tides occur during daylight hours. The following are element specific actions:

a) Replace displaced riprap protection along ladder entrance.

This effort would entail the hand placement of "single person" size rock along the base of the wing entrance bulkheads. This is direct hand labor whose execution depends on the ability to access the placement site during the negative tides. No equipment assistance is programmed into this effort other than stockpiling the material adjacent to the work area. It is anticipated that execution of this element would require the labor force to work on mixed soft-bottom and rock substrate in knee deep water.

b) Replace one 8 foot section of storm impacted shoring.

The original batter-boards within the wing entrance bulkheads are deteriorating and some have been lost during storm events. This has resulted in the reduction of shoreline protection at the ladder entrance. One eight foot section could be repaired by welding a plate steel on the vertical stringers of the bulkhead. A small amount of riprap fill (approximately 1 ½ yards) would be placed behind the repaired section. Safety railings will be fixed to the ladder structure during this operation.

c) Repairing two ladder cell footings by replacing storm damaged concrete and the under-shoring composed of rock.

Two of the lower ladder cells have been damaged by high storm waves. It is necessary, to prevent a complete ladder failure, to repair the cracked concrete cell bases and replace the underlying bed material with rock material. The cells will need to be de-watered,

framing placed and quick dry concrete placed within one low tide sequence in order to eliminate adverse water quality issues.

3) Describe briefly how this project will benefit resources potentially effected by oil spills:

The ladder provides access to the Beaver Creek drainage for native stock Coho salmon. It also provides salmonid access to the NOAA Marine Laboratory for their management/research efforts with salmonids.

4) Define the goals and measurable objectives of this project. How will success be measured?:

The end point goal is the 1) repair of the ladder wing riprap, 2) the welding on the shoring and riprap backfilling , and 3) concrete cell repair and under-shoring replacement.

5) What is the estimated duration of this project?

This is a tidal influenced project which needs to be coordinated within the ship crew availability. It is anticipated that the project elements could be completed during a two to three day period during 24 - 28 April, 1998.

6) What is the estimated cost of this project?

In-water/low tide work could take 2-3 days of manual effort for a crew of 30 people within the tidal and substrate limits. It is anticipated that a maximum of 5 to 6 yards of rock would be necessary. Plate steel of approximately 8 foot length to cover a vertical height of approximately 7 feet will be needed also. Miscellaneous quantities of concrete form material will be needed along with quick dry concrete. A site visit to fix specific material quantities and construction procedures will be completed during 3 or 4 February, 1998.

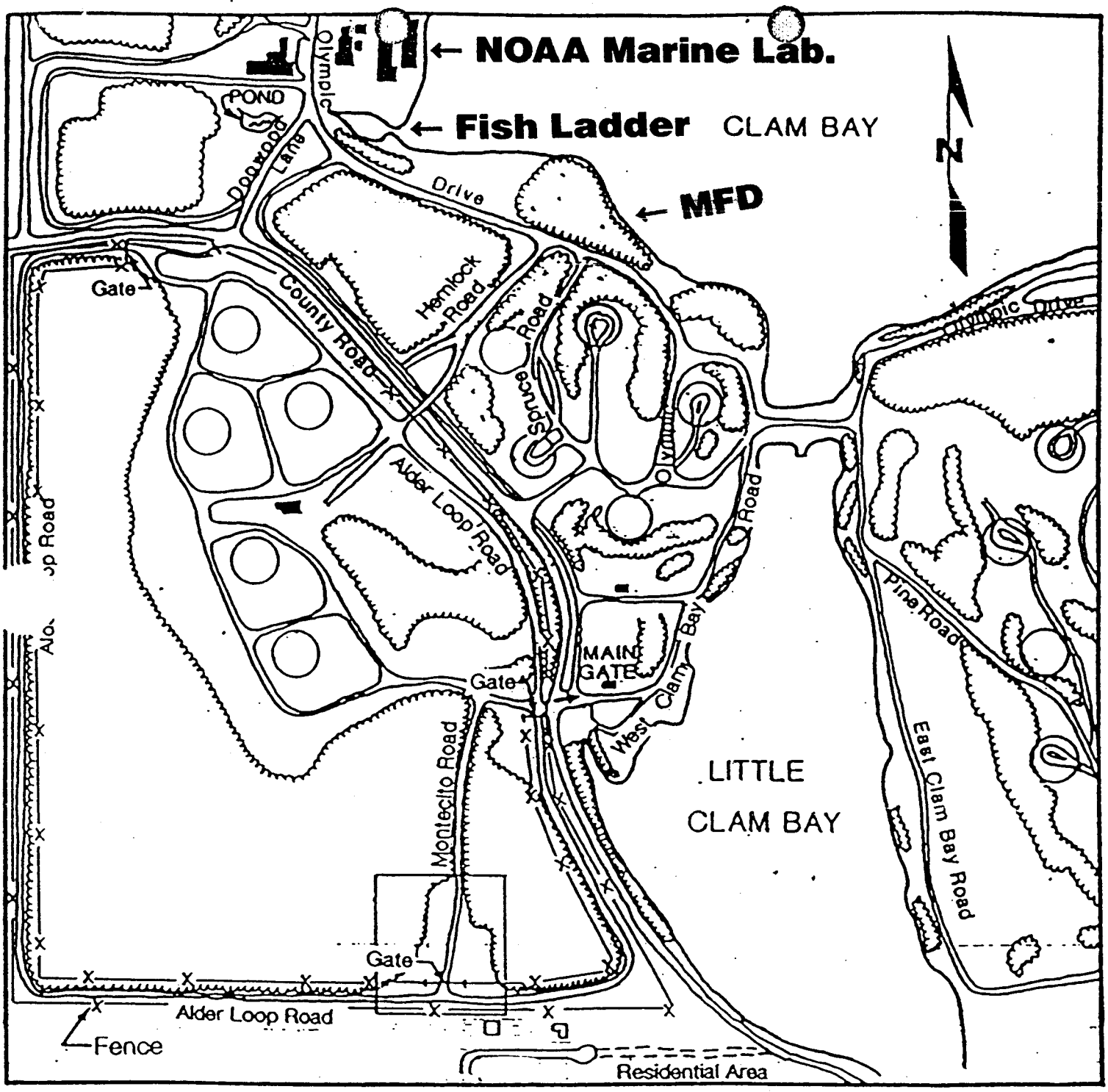
7) For projects involving habitat restoration/acquisition:

NOT APPLICABLE

a) What is the approximate acreage of the area to be restored?

b) What is the current ownership of the area to be restored?

c) Please attach a map(s) showing the location where the restoration project will take place. See, attached.


← NOAA Marine Lab.
← Fish Ladder
CLAM BAY
← MFD
N
POND
Olympic
Dogwood Lane
Drive
Gate
County Road
Hemlock Road
Spruce Road
Olympic Drive
Alder Loop Road
Cypress Road
Pine Road
MAIN GATE
Gate
West Clam Bay
East Clam Bay Road
Montecito Road
LITTLE
CLAM BAY
Gate
Alder Loop Road
Fence
Residential Area
0
500
1000
Scale in Feet